IFRS: Italian Experience on Impairment Test of Goodwill

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Abstract

The introduction of IAS/IFRS and recent vicissitudes in financial markets have prompted the need for companies to pay particular attention to the application of impairment rules and to disclosure offered by financial statements. The study contributes to the debate on the necessity to improve the quality of financial statements required after this change and evolution, in order to provide stakeholders with adequate evidence on which to base their decisions. This need is particularly evident with regard to intangible assets and goodwill, of which it is necessary to supply a correct balance sheet representation and valuation, particularly since intangible assets are today one of the main productive factors that allow companies to gain a competitive advantage and hence create value.

The research, divided into two sections, has set, as its main objective, ascertaining the accuracy of the information offered by consolidated financial statements of Italian companies listed on the Italian Stock Exchange, together with the analysis of impairment disclosure of all the entities belonging to FTSE MIB and FTSE MID CAP indices and to the Italian banking system. For this purpose, some international and national legislative provisions were considered: for each aspect, we proceed to state what legislative provisions require and then we expound our findings and observations.

Keywords

Impairment; Goodwill; Italian Listed Companies; Financial Statements; IFRS; Disclosure

Introduction

The progressive expansion of markets and the awareness of diversity in international accounting systems have fuelled the necessity to adopt a common accounting language.

The European Community Regulation n. 1606/2002 requires the adoption of IAS/IFRS for the preparation of consolidated financial statements of all European listed companies, as from January 1, 2005.

The transition to International Accounting Standards has entailed several shifts of the accounting system and of disclosure requirements: IAS/IFRS do not impose a rigid balance sheet layout because it has to comply with different businesses, but it does require more detailed information to allow investors to compare a firm's performance against their competitors and to make decisions about capital investments (Bauer, 2007).

In addition, business failures in recent years have brought to light the importance of providing reliable and continuous corporate disclosures, in order to provide stakeholders with adequate evidence on which to base their decisions (Quagli, 2004). The study contributes to the debate on the necessity to improve the quality of financial statements required after this change and evolution.

This need is particularly evident with regard to intangible assets and goodwill, of which it is necessary to supply a correct balance sheet representation and valuation, since intangible assets are today one of the main productive factors that allow companies to gain a competitive advantage and hence create value.

European listed companies perceive increasing pressures to improve corporate disclosure: furthermore, this research seeks to examine the impact of the new accounting system on financial information about impairment test of goodwill.

The research, divided into two sections, has set, as its main objective, ascertaining the accuracy of the information offered by consolidated financial statements of Italian companies listed on the Italian Stock Exchange, together with the analysis of impairment disclosure of all the entities belonging to FTSE MIB and FTSE MID CAP indices and to the Italian banking system. No apparent correlation has been found

between the amount of goodwill recorded in the balance sheet and the disclosure provided by firms, or the impairment in which firms incurred.

In the first part, the sample under investigation is represented by consolidated financial statements for the period 2007-2009 of the listed companies belonging to five market indices (FTSE MIB, FTSE MID CAP, SMALL CAP, STAR and MICRO CAP), on the basis of their market capitalization.

For this purpose, the following legislative provisions have been considered:

- IAS 36, Impairment of assets;

- Enforcement n. 2 OIC (Organismo Italiano di Contabilità - Italian Accounting Body) Impairment and goodwill;

- Enforcement of banking system n. 2. 1. OIC Impairment of goodwill;

- Bank of Italy/Consob/ISVAP Document n. 4 of March 3, 2010;

- The Checklist prepared by Assirevi.

In the following paragraphs, the definition of goodwill is followed by a short description of its accounting policy and impairment test applied to identify any asset impairment loss, according to International and Italian accounting standards.

Furthermore, analysis of the adopted research methodology is further specified regarding the impairment process (Methodology and Research Design) and, for each of them, the research expounds the theory and the empirical evidence discovered.

Subsequently, exposure of the research methodology adopted and the presentation of the results obtained on each element of information required by the regulations for the purposes of impairment testing are given.

Finally, tables and statistical indicators (mean and median) help to quantitatively outline the lack of compliance. The second part of the research analyses three representative samples: two indices of the Italian Stock Exchange previously mentioned, FTSE MIB and FTSE MID CAP, and the group of Italian listed banks required to prepare consolidated financial statements. Findings about the completeness of the disclosure of impairment tests, provided by notes, to the accounts and correlations between the results, are detailed. A

final section is devoted to a comparison of the data collected with respect to each sample.

Regulatory Framework and Literature Review

Recent events in financial markets have stimulated the necessity to pay attention to the correct valuation of impairments (OIC n. 2, 2009).

The widespread fear is that the IAS/IFRS will make operating results and business performance more variable (Verriest and Gaeremynck, 2009; Petersen and Plenborg, 2010), thus increasing the necessity to be receptive to national and international accounting rules, especially those rules relevant to delicate issues such as goodwill.

The implementation of the new accounting principles has triggered several discussions that range over a wide variety of subjects. Initially, the introduction of IAS/IFRS was a matter of concern for Italy and the other European countries that accepted these rules without any previous practice. Currently, about 100 countries have required or permitted the use of IFRS or supported the convergence of domestic accounting standards towards IFRS (Ball, 2006). There is an outstanding school of thought that upholds the theory through which IASB actually succeeded in developing a set of high quality accounting principles, even if the implementation of such principles has been hetero-geneous (Bova and Pereira, 2011; Ball, 2006).

According to some relevant contributions, a positive consequence of IFRS adoption is a better efficient capital market (Quigley, 2007) with enhanced reporting transparency and comparability (Ball 2006; Choi and Meek, 2005; Barth, *et alia*, 2008). IFRS will actually improve firms' information environment and effectively contribute to a lower cost of capital (Barth *et alia*, 2008; Armstrong *et alia*, 2010), especially in firms established in countries with strong and skilled enforcement regimes (Byard *et alia*, 2011).

The present research demonstrates that, despite the positivism of such beliefs, there are reasons to be doubtful about the fact that the mandatory use of IFRS alone is able to make corporate reporting more informative or more comparable, especially with reference to intangible assets such as goodwill. Several studies show that these international accounting principles do not actually have a leading role in

improving reporting quality (Daske et alia, 2008) and, in contrast, highlights the importance of firms' reporting incentives (Ball and Shivakumar, 2005; Ball et alia, 2003; Leuz, 2003; Ball et alia, 2000).

Managers using the new accounting treatment make a significant number of subjective decisions when reporting accounting information to investors (Jerman and Manzin, 2008). Impairment testing information turns out to be not so clear and exhaustive (Carlin et alia, 2007), especially if the recoverable amount chosen is fair value, because of the recent financial crisis that has led to more concerns about marking market (Laux, and Leuz, 2009). With regards to the subjectivity and the variables used in impairment tests, no reliable measures can be derived from the test (Schultze, 2005).

Specifically, this paper adds to the contributions that examine the appropriateness of disclosures concerning an impairment test of goodwill: there is often a discrepancy between the mandatory requirements and what the financial statements under analysis actually provide, thus supporting the already existing litera-ture.

The cornerstone of the provisions relating to the impairment test is represented by IAS 36, which invites any entity affected by the application of principles, to provide precise information about the estimates and assumptions made in reference to that procedure.

Chiefly, the accounting standard wants all entities to respect two disclosures, namely:

- information about losses and reversals: the procedures that an entity should apply in order to ensure that its assets are not overstated in the balance sheet;

- information about how a company should evaluate the amount to be recovered from a Cash generating unit[1] (CGU) to which goodwill or indefinite intangible assets have been allocated.

IAS 36 has to be first applied to all entities required by the European Regulation n. 1606/2002, to all Italian companies (according to D. Lgs. 38/2005) and also generally to all Italian entities that still draw up their financial statements according to national accounting standards[2] (CNDC, 2006).

Italian GAAP and the Italian Civil Code expressly addressed the issue of recognizing intangible assets impairment losses: article 2426 of the Civil Code requires application of the historical accounting method, less accumulated depreciation and impairment.

According to OIC n. 24, impairment loss is defined as the difference between the accounting value and the recoverable amount, as the highest between the net selling price and the value in use.

A further close examination of Italian accounting principles has raised the issue of Enforcement n. 2, n. 2.1 and 2.2 by the OIC, both are related to the impairment test of goodwill, but the second and the third are relevant to the banking and insurance systems.

The Enforcement n. 2, issued in December 2009, expounds some examples on how to apply IAS 36 to the industrial, commercial and service companies, while the following Enforcements, issued in 2010 and 2011, provide dictates that are called upon to be observed by entities operating in the banking and insurance systems.

They adhere to the IAS 36 goodwill impairment test disclosure and emphasize the necessity:

- to describe the procedures applied to identify each CGU and to calculate the carrying and recoverable amounts;

- in regards to CGUs, to give explanations about methods used to assess fair value less costs to sell, value in use and discount rates;

- to highlight the most relevant valuations through presumptive tables.

Finally, the Bank of Italy, Consob and ISVAP have joined forces in order to better verify and ensure compliance of financial statements to the current legal

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[1] According to IAS 36 (par. 6), a CGU is:

- the smallest identifiable group of assets that generates cash inflows that are largely independent from other assets or groups of assets;

- represent the lowest level within the entity at which goodwill is monitored for internal management purposes;

- not larger than a primary or secondary segment determined in accordance with IFRS 8 - Segment Reporting.

[2] Commissione per I principi contabili, CNDC, 2006 "Guida all'applicazione dell'impairment test dello IAS 36".

landscape. In March 2010, Document n. 4 was approved to bring companies a "timely and thorough application of standards and accounting principles in their entirety" (Bank of Italy, Consob and Isvap, 2010: 2). This Document emphasizes the need that financial statements are carried out in "full compliance with the requirements of IAS 36, for what concerns both impairment test procedure and the information provided in the notes."

Furthermore, Assirevi issued a checklist called IFRS, indicating all the most relevant information required by IAS 36 to be presented in financial statements, according to the IAS/IFRS (Deloitte, 2011).

Goodwill Impairment Test According To Ifrs 3 and Ias 36

It is possible to find different definitions about goodwill and all are generally accepted.

The Framework for the Preparation and Presentation of Financial Statements[3], par. 81, and IFRS 3 "Business aggregations", par. 52, identify goodwill as payment by an acquirer in expectation of future economic benefits from assets that are not capable of being separately identified and recognized (such as revenues or reduced future costs).

The OIC defines goodwill as the increase of a business or of a segment value due to better market positioning, or an additional income earned through the sale of innovative and highly demanded goods (OIC n. 2, 2009).

Moreover, goodwill is seen as a residual account and it represents the excess purchase price paid in a business acquisition over the fair value of the intangible and tangible assets obtained (Cinque, 2003). This difference represents the acquirer's willingness to pay for the capability of adding value, future economic benefits and building synergies.

Accounting principles IAS 36 e OIC 24 allows for the recognition of an asset of goodwill acquired from acquisitions, while internally generated goodwill cannot be capitalized in the financial statement, because it has an indeterminate useful life and it is not

separable from other assets (Jerman and Manzin 2008).

The main issue concerning goodwill is the fact that it does not generate profit in isolation (Carlin *et alia*, 2007), rather, according to Wines (Wines *et alia*, 2007), the profit arises from a group of net assets of which goodwill is the residual and is incapable of separate identification.

International Accounting Standards do not allow for goodwill amortization, because it is an intangible asset with an indefinite useful life and, according to IFRS 3, goodwill has to be annually reviewed for impairment, otherwise more frequently at each balance sheet date over the years if circumstances indicate that it might be impaired[4].

The goodwill recorded on the acquisition must be allocated to some or all of the CGUs. The identification of CGUs stems from a subjective management valuation that can individuate already existing CGUs or brand new CGUs to which goodwill has to be assigned. The allocation depends on the forecast of enjoying future economic benefits or synergies coming from the business combination.

IAS 36 "Impairment of assets" requires that the carrying amount of the assets recorded in a financial statement is less than the recoverable amount. If the recoverable amount is less than the carrying value, then an impairment write-down must be made. However in allocating an impairment loss (in

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[3] The IFRS Framework describes the basic concepts that underlie the preparation and presentation of financial statements for external users. The IFRS Framework serves as a guide to the Board in developing future IFRSs and as a guide to resolving accounting issues that are not addressed.

[4] In assessing whether there is any indication that an impairment loss recognized in prior periods for an asset other than goodwill may no longer exist or may have decreased, an entity shall consider, as a minimum, the following indications:

(a) a significant increase in the asset's market value during the period;

(b) significant changes with a favorable effect on the entity that have taken place during the period, or will take place in the near future, in the technological, market, economic or legal environment in which the entity operates or in the market to which the asset is dedicated;

(c) market interest rates or other market rates of return on investments that have decreased during the period, and those decreases that are likely to affect the discount rate used in calculating the asset's value in use and increase the asset's material recoverable amount;

(d) significant changes with a favorable effect on the entity that have taken place during the period, or are expected to take place in the near future, to the extent that, or manner in which, the asset is used or is expected to be used. These changes include costs incurred during the period to improve or enhance the asset's performance or restructure the operation to which the asset belongs;

(e) evidence is available from internal reporting that indicates that the economic performance of the asset is, or will be, better than expected.

accordance with paragraph 104), an entity shall not reduce the carrying amount of an asset below the highest of:

(a) its fair value less costs to sell (if determinable);

(b) its value in use (if determinable); and

(c) zero.

The amount of the impairment loss that would otherwise have been allocated to the asset shall be allocated pro rata to other assets in the unit (group of units).

Methodology and Research Design

The first part of the research is based on the analysis of consolidated financial statements of companies listed on the Italian Stock Exchange, during the years 2007-2009. The financial statements [5] have been downloaded from the official websites of the entities, which, based on their market capitalization[6], belong to the following indices:

- FTSE MIB: 36 stocks with market capitalization of 80% of the Italian Stock Exchange;

- FTSE MID CAP: 56 stocks with market capitalization of 10%;

- SMALL CAP: 124 stocks with market capitalization of 4%;

- MICRO CAP: 24 stocks with market capitalization of 1%;

- STAR: 74 stocks with market capitalization of 3, 5%.

The choice of examine only Italian firms comes from the necessity to make data more easily comparable and to assure that all the companies had chosen in the past homogeneous accounting treatments.

Furthermore, the time span 2007-2009 may be considered a representative period, even if very short, because it is adequate to analyze the effects of the IAS/IFRS goodwill policy on the disclosure provided by the financial statements. It is, in fact, a period of widespread financial stress, economic decline, and uncertainty. The evidence confirmed how the

contraction in wealth, the increase in risk dispersal and deterioration in credit market functioning (Reinhart and Rogoff, 2008) (Taylor, 2009) of those years negatively impacted on the information provided by financial statements.

For this purpose, for each consolidated financial statement, goodwill accounting policy and impairment test disclosure have been examined, drawing attention mainly on:

- individuation of CGUs to which goodwill is allocated;

- individuation of carrying and recoverable amount of CGUs (fair value less costs to sell, or value in use);

- if the recoverable amount is determined as value in use, then information about methodology and the discount, inflation and growth rates and the terminal value used in the assessment is sought;

- if the recoverable amount is calculated as fair value less costs to sell, then a description of the method is sought.

According to legislative provisions, these aspects appear to be the most significant ones in terms of impacts on goodwill impairment test disclosure, and the most cited in the explanatory notes attached to the examined financial statements.

To ensure correct understanding of the abundance of information available, the data reported in Table 1 were calculated by identifying some clusters and, within them, some subgroups for each year:

- cluster: among the analyzed financial statements, how many record goodwill? Subgroup: among these, how many financial statements impair goodwill?

- cluster: among the analyzed financial statements; subgroup: how many identify [1] CGUs?

- cluster: how many entities provide information about recoverable amount? Subgroup: among these, how many choose net fair value or value in use?

- cluster: entities that choose net fair value; subgroup: among these, how many companies describe calculation and amount of it?

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[5] We analyzed 543 consolidated financial statements, of which 68 were in 2007, 234 in 2008 and 241 in 2009.

[6] Available at the website: http://www. piazzaffari. info/borsa-italiana/ftse-mib-ftse-all-share-e-i-nuovi-indici. html

- cluster: entities that choose value in use; subgroup: among these, how many companies choose Dividend Discount Model (DDM) or Discounted Cash Flow (DCF)?
- among the entities that indicate DDM or DCF, how many companies identify the procedure to calculate the discount rate and indicate the amount?
- how many companies include growth or inflation rate in the discount rate estimates? How many of them indicate the amount?

For each aspect, we proceed to state what Italian and international provisions require and then we elaborate on our findings and observations[7].

The limitations encountered in the analysis are due to the fact, that in many cases, the number of financial statements that provide the information sought is small (e.g., the amount of goodwill allocated to each CGU, the book value of a CGU, or the reasons for a different organization of CGUs in the company), so the contribution of a cluster consisting of a few individuals is considered insignificant. The nature of the information disclosed by the sample firms with regard to some elements does not, in fact, allow statistical analysis.

As clarified further in the following paragraphs, it was not possible to gather enough disclosure, about some impairment test elements, and this inevitably had an impact on the deepness of our analysis.

The lack or the incompleteness of the information provided into the balance sheets has prevented a close examination of more attractive comparisons, such as those related to the discount rate or the criteria to identify Cash generating units, employed by firms belonging to the same economic field (e.g. bank system).

Descriptive Statistics

The disclosure taken from the considered cluster is somewhat incomplete, (as stated in the previous paragraph, the balance sheets analyzed do not show all the information and figures we were looking for) in contrast against the accurate transparency requested by international accounting principles, but absolutely in line with other authors' experiences.

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[7] The data reported below in support of our observations refer to Table 1.

The overall lack of information concerning the issues under investigation can especially be seen with regard to the identification of CGUs, the recoverable amount and the amount and method of calculation of discount, inflation and growth rate for the determination of the value in use.

The following paragraphs explain the observations gathered in the course of our investigation.

Goodwill

Goodwill and intangible assets allocated to CGUs are notably subject to managerial manipulations (Wilson, 1996), and therefore, for the significance of equity, it is important that the goodwill is tested for impairment properly. Our survey has shown that almost all the companies recorded goodwill: the average amount is of 1.906 million €, with a medium equity of 4.273 million € in the triennium. These values show that goodwill represents a very relevant asset in the balance sheets under study and are a considerable portion of shareholders' equities.

The year in which the largest number of companies (96%) recognized goodwill is 2007.

As indicated, we analyzed a smaller number of companies for this exercise, with 90% of them belonging to the FTSE and FTSE MID CAP MIB indices. This group consists of entities with greater market capitalization, and about 30% are represented by banks and insurance companies. The current Italian banking system has undergone profound changes in recent decades following a wave of mergers and acquisitions (Panetta, 2004), so that the percentage of companies that recorded goodwill on their balance sheet is greater than in 2008 and 2009.

As already mentioned, goodwill is not subjected to amortization, but it is tested for impairment, through the Cash generating unit to which it is allocated. A CGU could occur in impairment if, and only if, the recoverable amount of the unit (group of units) is less than the carrying amount of the unit (group of units).

The order through which the impairment loss shall be allocated to reduce the carrying amount of the assets of the unit (group of units) is as follows:

a) First, it is necessary to reduce the carrying amount of any goodwill allocated to the CGU (group of units); and

b) Later, the loss is distributed to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units).

In allocating an impairment loss in accordance with paragraph 104, an entity shall not reduce the carrying amount of an asset below the highest of:

- its fair value less costs to sell (if determinable);

- its value in use (if determinable); and

- zero.

An impairment loss recognized for goodwill shall not be reversed in a subsequent period[8].

The average value of depreciation has been estimated at 29 million €: the largest and highest devaluations were recorded in 2008. The average depreciation of 2008 is double the recorded depreciation in 2007 and 2009: in the first year considered it is 22 million €, in 2008 the average is 44 million € and it diminishes again in 2009 to 21 million €. It has been suggested that the extent of depreciation incurred in 2008 is due to the expansion in Europe of the financial crisis that began in the United States in 2007 and that affected economy and banking systems worldwide.

As it can be seen in the following "Samples Analysis" paragraph, in regard to FTSE MIB, 27% of the most important depreciations of 2008 were recorded by financial companies and banks: the hardest hit by financial troubles in the triennium considered.

Due to the fact that most of the analyzed balance sheets did not carry out any impairment, the average value of depreciations calculated as a medium of the considered cluster is strongly influenced by the presence of too high or too low amounts of goodwill.

To remove any data corruption, the median of the three-year period was calculated, resulting in an impairment value that is lower and more acceptable, equal to 1 million € in 2007, 7 million € in 2008 and 4 million € in 2009.

We also calculated the Goodwill/Equity ratio, G/E, which indicates the percentage of goodwill on equity. G/E measures how much equity would be lost if

goodwill was impaired (Pieri, 2009; Burnett and Best, 2011).

This ratio is very interesting because it allows the investors to understand how much equity relies on the intangible and risky value of goodwill and on the economic benefits the company expects will come from it.

The higher G/E is, the more the firm has to verify the economic and financial sustainability of the investment, after which it recorded goodwill in its balance sheet. The ratio amount could vary from zero, meaning that the entity does not have goodwill, to 100% or over, without having any threshold.

According to some authors (Burnett and Best, 2011), a ratio above 10% may indicate an alarm signal for investors: in the examined sample, G/E is above the safety threshold, considering that the average datum of the triennium informs that goodwill consists of about 45% equity. This means that almost half of share-holders' equities relies on the stated goodwill values.

As can be seen in Table 1, 2007 G/E is smaller than 2008 and this is due to the fact that 30% of the 2007 balance sheets belong to banks and insurance firms with a higher amount of equity (this influences the ratio G/E) compared to the other companies. In fact, most banking houses increased their paid-in capital during the considered period, since equity strengthening is an essential condition to cope with impairments and losses and is a necessary requirement to manage banking risks according to Basel III (Franceschi and Pavesi, 2011).

Another relevant indicator that represents the percentage of impairment on each entity of total goodwill is the I/G. As aforementioned, goodwill is subjected to impairment, when a CGU's recoverable amount is less than the carrying value, because there is no more perspective of economic benefits or synergies coming from the business combination. The impairment of goodwill is responsible for the decrease of an entity's assets and consequently for the deterioration of the shareholder's value.

According to Seetharaman *et alia* (2005), the facts that would lead to an impairment loss could be various indicators:

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[8] The reasons are due to the impossibility of distinguishing between internally generated goodwill and the actual reversal of goodwill previously recorded.

- significant adverse changes in legal factors and business environment,

- loss of key customers,

- possibility of business contract with major suppliers and distributors,

- adverse action by regulatory bodies,

- loss of key employees,

- failure in budget forecasting,

- failure in managing acquisition.

In the presence of an economic meltdown, these factors are often easily recognizable.

In our evidence, the average I/G of the triennium is 2%, but by taking into consideration the most various and highest depreciations of 2008, the ratio reaches above 3%. This means that over 3% of the goodwill during 2008 was impaired, and at the same time shareholders' equity was reducing in value.

For a more detailed analysis of these indices, see the commentary paragraphs to the samples.

Cash generating unit

According to IAS 36 (par. 6), a CGU is:

- the smallest identifiable group of assets that generates cash inflows that are largely independent from other assets or groups of assets;

- represents the lowest level within the entity at which the goodwill is monitored for internal management purposes;

- not larger than a primary or secondary segment determined in accordance with IFRS 8 - Segment Reporting.

The OIC Enforcement n. 2 states that the highest level to which impairment tests should be applied is segment reporting and not entity level, as this would require the development of additional analysis and reporting systems.

To determine if cash flows coming from an asset or from a group of assets are largely independent from other assets or groups of assets, the company should consider the following elements:

- the monitoring of the activity;

- the decision on the production and distribution of goods;

- the existence of an active market for products and services.

Management must individuate CGUs consistently with the audit model of performance adopted: analysis by product line, by business units, and by geographical location (n. 2.1 OCI, and OCI n. 2.2 2011, 2011).

The goodwill recorded on an acquisition must be allocated to some or all of the CGUs. As previously mentioned, the allocation depends on the positive forecast of economic benefits or synergies coming from the business combination.

A proper transparency may contribute towards reducing uncertainties, especially in such a historical period of economic and financial changes (Bank of Italy, Consob and Isvap, 2010).

If goodwill allocation is not sufficiently explained in the notes to the accounts, then the users will not know how it has been distributed among businesses, and which assets it has been attributed to, thus resulting in a diminished capacity to prepare detailed reporting entity impairment risk profiles (Carlin and Finch, 2008).

It is not easy to find the required conditions for the banking and insurance system.

According to what OIC Enforcements said, in the insurance system, the cash inflows, which concern life, damage and real estate/financial segment activity (OIC n. 2. 2, 2011) can be tightly integrated with each other and therefore belong to the same CGU.

Moreover, according to the OIC Enforcement n. 2.1 and 2.2, the highest level of integration between financial products and distribution from an Italian financial perspective makes it difficult to determine the minimum level within the entity at which the goodwill is monitored and a segment based on either the entity's primary or the entity's secondary reporting format.

Nevertheless, the allocation of goodwill to different CGUs is likely to have an influence on impairment tests. The situations that may occur for the purposes of the allocation of goodwill are:

a) the CGU coincides with the acquired company;

b) the CGU represents a segment of the acquired company;

c) the CGU is a field of activity;

d) the CGU is wider than that of the acquired entity;

e) the CGU to which goodwill has been allocated to is another group of CGUs.

A serious issue concerns defining the size of CGUs: allocation at the lowest level within the entity permits a more accurate impairment test. As CGUs grow in size, they become more difficult to impair and thus losses are reduced (Saracino, nd). If goodwill allocation is not precise, then, according to IAS 36, the risks that impairment losses, which should be recognized in a given period, are not identified during that period rises (Carlin and Finch, 2008). However by defining more CGUs, a higher loss would be recognized and more would be impaired.

Usually, the identification of a less than necessary number of CGUs results in delayed impairment tests (Carlin and Finch, 2009) and impacts on disclosure quality related to future growth rates (Carlin and Finch, 2008).

The disclosure required by international and national accounting standards demands that each CGU is given the following information:

▪ the logical basis of identification of CGUs;

▪ the amount of the most significant goodwill attributed to a CGU;

▪ how to calculate the recoverable amount.

Despite what is asked by legislative provisions, as we can see in Table 1, only an average of 73% of companies within the considered sample identify their CGUs in the balance sheet. In addition, the main information gaps concern the logical basis of a CGU identification, the carrying amount and the amount of goodwill attributed to them. According to IAS 36 (par. 72), CGUs shall be identified consistently from period to period for the same asset or types of assets, unless a change is justified. The lack of such information or at least a superficial knowledge of it inhibits considerations about the way CGUs have been identified and rough judgments on their size, despite the evident consequences of a firm's possible choice.

It was not even possible to report information gathered about the internal reorganizations of CGUs, due to the limitations encountered in the course of investigations.

Recoverable amount

If the recoverable amount is less than the carrying value, then an impairment write-down must be made. The recoverable amount of a CGU is the higher of the CGU fair value less costs to sell and its value in use. According to par. 134 of IAS 36, it is necessary to provide proper information about the method used to calculate the recoverable amount. Generally, it is subjected to management discretion (Harris and Caplan, 2002), and according to some authors (Verriest and Gaeremynck, 2009), sometimes it is preferable to conceal information from investors by exaggerating the expected future cash flows and/or understating the discount rate so as not to incur a loss.

The carrying amount of a CGU shall be determined on a basis consistent with the way the recoverable amount of the CGU is determined.

The carrying amount of a CGU:

a) includes the carrying amount of only those assets that can be attributed directly, or allocated on a reasonable and consistent basis, to the CGU and will generate the future cash inflows used in determining the CGU's value in use; and

b) does not include the carrying amount of any recognized liability, unless the recoverable amount of the CGU cannot be determined without consideration of this liability.

Each CGU must take account of financial assets and liabilities, goodwill and intangible assets allocated. The book value excludes balances on the working capital due to the subject of independent verification by other standards (Dodesini, 2009).

Generally, the percentage of companies that pick net fair value is very low, and the reason is ascribed to the necessity to find (for each CGU or for groups of CGUs) the price in a binding sale agreement in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal. This is the best evidence of fair value, but in the absence of a binding sale agreement, the entity should use quoted prices in an

active market[9], which is the best information available to reflect the amount that an entity could obtain at the reporting date. As a result, usually, the recoverable value coincides with the value in use. The theory is largely confirmed by results obtained in our research: the cluster of companies that provide information about the recoverable amount has been split between those who take only fair value less cost to sell, those who choose only value in use, or both methods.

In the three year period, 85% of companies only chose value in use, while only 2% of them picked net fair value. The remaining 13% is represented by entities that chose both methods to calculate the recoverable amount.

It should be stressed that many companies still do not comply with the disclosure requirements requested by current regulations. An average of 22% of subjects did not provide any indication about their recoverable amount. Furthermore, during 2008, the year in which there were more gaps, about 66 companies of 234 (28% of the cluster) chose not to comply (see Table 1).

As already mentioned, the greatest number of write-downs occurred during the year 2008, coinciding with the plunge in the economic crisis. This is also the year that had the largest number of deviations from the legislative provisions about CGUs and their recoverable amount.

Fair value less costs to sell

During our analysis, it was observed that in a few cases companies chose fair value less cost to sell as the only method of determining the recoverable amount. The most relevant datum was found in 2008, although it does not exceed 3% of the sample. The general empirical evidence shows that the value in use prevails over fair value in the calculation of the recoverable amount (McDonnel, 2005) and this is also confirmed by our survey results.

A possible reason could be that fair value accounting can affect not only the relevance of accounting information, but also the integrity of companies' assets. In countries where laws prompt companies to maintain minimum legal capital, the recording of unrealized losses may reduce a company's assets to a

level below minimum thresholds (Strampelli, 2012).

According to IAS 36 (par.6) definition, fair value less costs to sell is the amount obtainable from the sale of an asset or CGU in an arm's length transaction between knowledgeable, willing parties less the costs of disposal.

To determine a CGU's net fair value, IAS 36 par. 25-30 says that if there is no binding sale agreement but an asset is traded in an active market, then the fair value less costs to sell is the asset's market price less the costs of disposal. If there is no binding sale agreement or active market for an asset, then the fair value less costs to sell is based on the best information available to reflect the amount that an entity could obtain, at the end of the reporting period, from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties after deducting the costs of disposal.

However it should be noted that determining a reliable fair value is subject to the presence of a CGU "company" or "business unit" being disposed of or otherwise alienable. Only in these cases can a binding agreement or the best available information be found.

The standard requires a description in the notes to the accounts of the methodology used to determine the net fair value and assessments applied in the calculation. It was found that slightly more than half of entities describe the method used for determining fair value, yet the information is incomplete, especially from the 2008 and 2009 period, where only 50% of entities comply with legislation. The outcome from 2007 proves better, with 90% of companies complying with the rules. Moreover, banks and insurance companies appear to be more virtuous in this respect.

Factors found to determine the method used to evaluate net fair value are:

- market multiples,
- sales of listed companies operating in similar business,
- market capitalization.

The most used method is Market Multiples Analysis, which implies the use of indicators, such as P/EBITDA, P/E (Comoli, n. d.), through to criteria such as technology, leverage, growth and turnover.

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[9]   An active market is defined in the Standard as a market in which all of the following conditions exist: (a) the items traded within the market are homogeneous, (b) willing buyers and sellers can normally be found at any time and (c) prices are available to the public.

The most used procedure involves referring to similar or comparable transactions, where the acquired entity has a similar business model and clientele to the company being evaluated.

The advantage of this method is that it is easily comprehensible for investors and widely used, especially in legal cases or when other approaches like DCF are difficult to apply due to negative and speculative cash flows, but suffer from several serious limitations.

Market multiples analysis disadvantages are particularly obvious, especially considering the current economical scene. The risks of errors in assessments have been increasing, and market volatility causes information to be somewhat unreliable. Comparable transactions are especially subject to discretion in evaluating a business, because it is easy to underrate or overprice an entity value, and often missing or obsolete information makes it difficult to find companies with similar business models of the entity being assessed (Belmar, n. d.).

The current economic environment has increased the risk of errors in the estimation of values, thus the uncertainty and financial market volatility has resulted in unreliable information.

Moreover, each bank has its own growth rate and well-defined market risks; therefore by referring to market means, imprecise assessments can occur.

According to the OIC Application No. 2, the aforementioned evaluations can be used only when there is a number of transactions that are able to represent a market, and when there is inconsistency between CGUs by type of business or geographical location. In addition, it is required that the transactions are "recent, but in situations of very high market volatility" (OIC No. 2, 2009: 25).

Value in use

IAS 36 defines value in use as the present value of the estimated future net cash flows from the use of an asset, including the amount expected from its disposal at the end of its useful life.

While fair value concentrates on market expectations, value in use refers to a business internal expectation and to all the synergies it is able to set (OIC n. 2. 1,

2009), therefore, it is assessed through management subjective valuations that could discretionally vary future cash flows and decrease discount rates (Verriest and Gaeremynck, 2009).

The standard clarifies that the following elements should be reflected in the calculation of an asset's value in use:

a) an estimate of the future cash flows that the entity expects to derive from the asset;

b) expectations about possible variations in the amount or timing of those future cash flows;

c) the time value of money, represented by the current market risk-free rate of interest;

d) the price for bearing the uncertainty inherent in the asset; and

e) other factors, such as illiquidity, that market participants would reflect in pricing future cash flows that the entity expects to derive from the asset.

Estimates of future cash flows should include:

a) projections of cash inflows from the continuing use of the asset;

b) projections of cash outflows that are necessarily incurred to generate the cash inflows from continuing use of the asset (including cash outflows to prepare the asset for use) and can be directly attributed, or allocated on a reasonable and consistent basis, to the asset;

c) net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life.

The discounted net flow is the EBITDA, i.e. the profit before depreciation, "adjusted for maintenance investments of expected future benefits" (OIC No. 2, 2009).

Estimates of future cash flows should not include cash inflows or outflows from financing activities and income tax receipts or payments.

According to the OIC Application No. 2 (p. 14), the administrative body is responsible for forecasting plans on which to base future cash flows, built on reasonable and supportable assumptions.

For the purposes of impairment testing, careful

construction of a cash flow multi-year business plan is based on appropriate management considerations on the existence of exogenous signals of impairment (Bank of Italy, Consob and ISVAP, 2010). This overriding need is especially evident in these years of severe economic and financial imbalances.

The empirical evidence, offered by the survey carried out by the Bank of Italy, Consob and ISVAP, showed that many companies in 2008 did not have any business plan at all, to take into account the complex changes in market scenarios induced by the crisis.

As already mentioned in the paragraphs about the recoverable amount and net fair value, value in use is the most used method, either alone or together with the fair value less costs to sell.

The average percentage of companies that chose value in use is about 98% and, among these, 95% described the procedure used to calculate it as, in most cases, the DDM and the DCF methods. They differ from each other in their estimation approach: DDM assesses only business capitalization, while DCF considers the entire firm (enterprise value), which includes equity and interest bearing debt (Petersen and Plenborg, 2008).

Banks more frequently use Free Cash Flow to Equity (FCFE), a typology of DDM, according to the Excess Capital method. Stocks are assessed through the net present value of future dividends as the discounted value of future dividend cash flows. The implied discount rate is specific for banks, as it considers risks linked to the cost of capital and is thus effective to manage banks portfolios of existing securities (Gambacorta and Mistrulli, 2003).

DCF is useful "to get over the difficulty of determining a terminal value for the Dividend Discount Model" (Penman, 1998). A CGU value in use is calculated through the assessment of operative cash flow, before the financial component, on the considered time horizon. DCF is preferred by over three quarters of the studied companies.

Document N. 4 of the Bank of Italy, Consob and ISVAP states that among the information to be provided by financial statements, illustration of the criteria used to estimate the value in use and the evaluation process of goodwill should be included. However, the collected results show that Italian listed companies are still far from the level of disclosure required by current regulations.

Our analysis especially focuses on the provided

disclosure concerning the calculation of value in use (WACC, CAPM, amongst others), the applied discount rate (we sought the eventual indication of the amount and/or the description of the calculation), the forecasting period, the terminal value and the growth and inflation rate. It would be of great interest to investigate each qualifying element required by legislative provisions, but, once more, restraints of our hypotheses are restricted to the information available.

Discount rate

IAS 36 (par. 55) states that the discount rate(s) shall be a pre-tax rate(s) that reflect(s) current market assessments of the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted.

The OIC further emphasized IAS 36 par. 56, saying that "to calculate the value in use, cash flows have to be discounted using a rate that reflects current market assessments of the time value of money and the specific risks to the asset" (OIC n. 2, 2009). According to IAS 36, par. 56, this rate, in fact, is the return that investors would require if they were to choose an investment that would generate cash flows of amounts, timing and risk profile equivalent to those that the entity expects to derive from the asset.

Therefore, if it is possible, this rate has to be estimated from the rate implicit in current market transactions for similar assets or from the weighted average cost of capital of a listed entity that has a single asset (or a portfolio of assets) similar in terms of service potential and risks to the asset under review.

However, only in rare circumstances is it possible to find market rates for assets (an example is that of real estate investments) and in no case does a market rate for a specific CGU exist.

It should be noted that, in the event that the recoverable amount is calculated as the value in use, it is necessary to provide information not only about the budget plans, cash flows, terminal value and time horizon of discount, but also about the discount rate used.

In fact, the choice of discount rate is an essential and influential step to the impairment testing process outcomes. Often, discretion about the selection of discount rate "could be used opportunistically to avoid or manage the timing of impairment losses to the detriment of transparency, comparability and decision usefulness" (Carlin and Finch, 2009; Carlin and Finch,

2008).

The empirical evidence provided by our contribution has brought to light that only 82% of companies described their method of discounting cash flows (Table 1), confirming results from the survey carried out by the Bank of Italy, Consob and Isvap that states that Italian firms 2009 financial statements do not provide adequate information about the discount rate.

Methodologies to calculate the discount rate are:

- WACC[10] (Weighted Average Cost of Capital): it considers both the return on the capital asset and the cost of debt. This method has been chosen by 77% of companies.

- CAPM[11] (Capital Asset Pricing Model): this is the method most used to estimate an appropriate banking system discount rate because it represents the current market assessment and the cost of paid in capital, since debt is functional to a bank business. This method is often chosen by 62% of banks and 17% of listed companies.

In addition, it was observed that companies that indicated the method of discounting (DDM, DCF) did not always indicate the amount of the rate and vice versa, so the percentages of the two pieces of information were calculated on the total value of the entities that chose the value in use.

An important issue is the establishment of a time frame for discounting cash flows. If the forecasted time span of future cash flows is too long, then they lose reliability and the difficulty in estimating the value in use rises.

IAS 36 paragraph 33 requires that cash flow projections

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[10] The average cost of capital (WACC) is calculated as follows:

WACC= Ke * E/(E+D) + Kd * (1-t)* D/(D+E)

- Ke: cost of capital;
- E: equity;
- D: debt;
- Kd: cost of debt;
- t: tax rate.

[11] The discount rate as the return on the capital asset K (CAPM) is calculated as follows:

K= r + $\square$ (rm – r)

K= expected return on the capital asset

r = risk free rate

$\square$ = represents the sensitivity of the expected excess asset returns to the expected excess market returns

(rm - r)= market risk premium.

be based on management's budgets and forecasts for the so called "explicit period", which should not exceed the limit of five years. It is possible to accept a longer period, up to 10 years, if specifically justified in the notes. On average, 86% of companies specified the discount time frame.

Terminal value

The terminal value of a company at the end of the flow forecasting period is determined by infinite capitalization of the cash flow achievable in normal conditions at an appropriate "g" rate (OIC n. 2. 1, 2011), or through other more representative methodologies of an entity business and only if there is enough information for the application (OIC n. 2, 2009).

Considering that forecasts are made for a finite number of years, terminal value continues to forecast future cash flows, starting from the truncation of the time horizon, even if sometimes its calculation stands upon doubtful assumptions (Penman, 1998). This is another element of the impairment testing process subject to management manipulation: the basis of terminal value assessment is the growth rate, that may be assumed to be constant or decreasing (or increasing in rarer circumstances) and it must not exceed the long-term growth rate of a segment level, of the countries in which the entity works, or the markets in which the product is commercialized. OIC wants managers to pass their judgment with "prudent and wise realism" and to express their assessments in a proper table in the notes to the account.

The great subjectivity of assessments needs investigation behind the reasons supporting decisions made on the calculations and valuations.

It is apparent in every element we observed that disclosure does not provide a reliable or clear picture of information: it is difficult to offer more meaningful data about the financial and economic situation and for shareholders to compare financial statements among different entities to make informed decisions (Moretti, 2004).

The sample shows that on average 85% of companies disclose their method for determining the terminal value, but during the period 2007-2009, few financial statements indicated whether the rate of inflation or of growth was considered in estimating the discount rate.

As for the discount rate, it is not possible to contemplate the amount of such rates, for reasons of lack of disclosure. Among companies claiming to take into account the growth rate, 13% also indicate its amount, but few data are available about the inflation rate, as only 2% of those who claim to use the rate of inflation in the discount rate, also specify the amount.

Sensitivity analysis

In order to effectively consider the disclosure provided about the goodwill evaluation process, Document N. 4 of the Bank of Italy, Consob and ISVAP need to provide accurate sensitivity analysis results that were carried out on impairment tests, compared to changes on basic assumptions.

The sensitivity analysis allows observation of the recoverable amount over the carrying amount, in the event of a change in the basic assumptions, checking the sensitivity of the results obtained. The survey is important in order to test that the assumptions underlying the estimates of the value in use do not contain uncertainties.

TABLE 1 QUANTITATIVE ANALYSIS

YEAR FINANCIAL STATEMENTS	2007 68	%	2008 234	%	2009 241	%	Mean 2007-2009
N. of entities with goodwill	65	96%	200	85%	201	83%	88%
N. of depreciations	15	23%	64	32%	53	26%	27%
N. of entities that identify CGUs	54	79%	159	68%	174	72%	73%
Information on recoverable amount	57	84%	169	72%	188	78%	78%
Only net fair value	1	2%	4	2%	2	1%	2%
Only value in use	47	82%	144	85%	163	87%	85%
Both	9	16%	19	11%	23	12%	13%
If net fair value is chosen:							
Method	9	90%	11	48%	13	52%	63%
Amount	0	0%	1	4%	2	8%	4%
If value in use is chosen method:							
DDM	6	11%	8	5%	13	7%	8%
DCF	48	86%	151	93%	159	85%	88%
Discount rate							
method	44	79%	137	84%	156	84%	82%
WACC	30	68%	118	86%	119	76%	77%
CAPM	6	14%	24	18%	29	19%	17%
MEAN (in million €)	2007		2008		2009		Mean 2007-2009
Goodwill (G)	€2. 845		€1. 446		€1. 426		€1. 906
Equity (E)	€6. 569		€2. 963		€3. 288		€4. 273
G/E	**43,31%**		**48,80%**		**43,38%**		45%
Impairment (I)	€22		€44		€21		€29
I/G	0,78%		3,02%		1,44%		2%

Source: Financial statements analysis.

In this case, administrators must specify:

- the excess recoverable amount over the carrying amount of a CGU;

- the value assigned to the key assumptions;

- the change of key assumptions that makes a CGU recoverable amount equal to its book value.

Usually, companies choose to change one of the elements underlying the calculation of the value in use and illustrate by way of example what happens to the recoverable amount in their financial statements.

Another possible approach could be a change in the value assigned to the assumptions that makes a CGU's recoverable amount equal to its book value, in order to record a write-down. This information is even more significant given the current volatility in the markets and uncertainty about future economic prospects.

Samples Analysis

The second part of the research deals with the analysis of impairment tests carried out by listed companies belonging to subgroups of the larger group first considered. In line with the objective of verifying the compliance of the information provided by consolidated financial statements with the regulatory landscape described above, we identified three samples.

The first two groups are represented by companies belonging to two Italian Stock Exchange [12] indices, FTSE MIB and FTSE MID CAP, and the third by the group of Italian listed banks [13], required to prepare consolidated financial statements.

We decided to further narrow the survey to focus the attention on those subjects that have more significance for the purposes of our analysis.

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[12] The acquisition of the Italian Stock Exchange by the London Stock Exchange Group in 2007 led to the reorganization of the Italian stock market indices for the creation of indices belonging to the FTSE Group: FTSE MIB, FTSE Mid Cap, FTSE Small Cap, Micro Cap and FTSE Star are the most relevant.

Available on the website: http://www. ftse. com/Indices/FTSE_Italia_Index_Series/Downloads/FTSE_Italia_Series_Index_Rules_ITA. pdf

[13] Italian listed banks amount to 18, but Credito Artigiano is included in Credito Valtellinese group, while Banco di Sardegna joins BPER and draws up a consolidated financial statement.

In fact, companies that are part of the above mentioned indices are considered the most important in terms of market capitalization: the FTSE MIB index is characterized by the presence of 40 stocks with market capitalization amounting to 80% of the Italian Stock Exchange, while FTSE MID CAP is composed of 60 stocks that together hold 10% of the Italian Stock Exchange.

The sample of banks is particularly sensitive to issues of disclosure and clarity, especially in a time of significant financial imbalances that involve the banking system in particular.

After illustrating the more interesting quantitative data (the average goodwill and impairment for each year and for the three-year period, and the ratio G/E and I/G), we attempt to identify correlations within the selected samples, using as few "research questions" as possible.

The questions on which the research is based are the following:

- is there a correlation between G/E and I/G?

- is there a correlation between G/E and the amount of information provided in the notes to the accounts?

- is the amount of the provided information somehow related to write-downs?

FTSE MIB Index

With reference to the first subgroup, namely the FTSE MIB index, the research considers the consolidated financial statements of 30 entities in 2007, 36 in 2008 and 2009 and 28% of the cluster consisting of banks and insurance companies.

The choice of a close examination of FTSE MIB Index is necessary to further investigate the compliance of Italian companies with the highest dimensions in terms of market capitalization.

Companies belonging to the FTSE MIB index could be considered as a significant sample, because they are representative of the behavior and evolution of the Italian stock market. These firms should set a good example to the smaller ones to better meet local and international regulations.

It should be stressed, finally, that the companies belonging to the FTSE MIB at the time of

research are substantially different from those that currently compose it.

During the three years analysis, it has been observed that almost all the entities belonging to the FTSE MIB recorded on average a high amount of goodwill, such as 4.801 million €. The rate of those during the triennium who were impaired is 30%. The year 2007 is characterized by a higher goodwill (5.478 million €) compared to the average goodwill recorded in 2008 and 2009 and by fewer write-downs (only 17% of companies recognized a loss).

Higher depreciations were found in 2008, when 41% of the cluster detected a loss that, on average, was 160 million €. A possible reason for this outcome is attributable to the credit and mortgage crunch that stemmed from the U.S. in September 2007, as a result of the housing bubble, and spread to Europe in 2008, leading to the failure of numerous banks and financial entities.

Among the entities that recorded goodwill (Table 2), on average, about 50% of them have a goodwill amount of less than 1 bilion Euro, while some companies, 13% of the total, have a higher goodwill, of10 bilion Euro. These entities are banks and companies operating in telecommunications and energy systems, because their economic area was involved in past decades in several business combinations.

As stated in previous paragraphs, the most significant write-downs occurred in 2008. They exceeded 300 million € and concerned banks most affected by the economic crisis and companies operating in telecommunications and mechanics systems. 76% of companies have an amount of goodwill that is too high with respect to their equity. This could inevitably influence a firm's financial strength and negatively impact on the guarantee of investments sustainability, offered to shareholders. Three quarters of firms have a G/E ratio higher than 10%: according to what is stated in paragraph 5.1 named "Goodwill", this evidence may represent an alarm signal for investors.

Given these factors, correlations between data in financial statements were sought in an attempt to reach significant conclusions. For instance, the research tried to demonstrate if companies that impaired the most during the considered period gave little information about their impairment process.

This natural consideration is due to the fact that in such difficult times, some firms could be more inclined to hide their negative economic and financial results, to inspire greater confidence to investors.

In addition, the research aimed to achieve similar evidence with reference to firms with higher amount of goodwill in their balance sheets.

A further attempt was also made to investigate the existence of a direct relation between I/G and G/E ratios, in other words, whether the impairment loss grew with the biggest amounts of goodwill, in absolute terms. "Did firms with relevant G/E impair the most?" was the initial interesting question.

The results shown in the graph below (Figure 1) display the variety of data obtained with this regard.
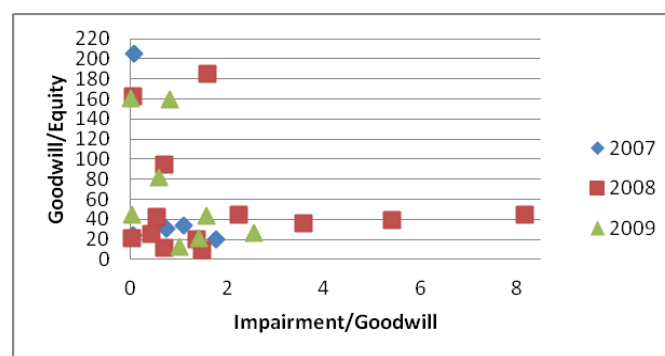

FIGURE 1 RELATION BETWEEN IMPAIRMENT/GOODWILL (I/G)
AND GOODWILL/EQUITY (G/E) RATIOS

Source: Financial statements analysis.

As it is possible to notice from Figure 1, it is difficult to find a correlation between the two ratios under examination, because the data are is so diverse.

The collected results demonstrate that the impairment does not vary depending on goodwill: in 2007, when G/E was quite small, depreciations were higher, and when the ratio exceeded 100%, the impairment represented an exiguous percentage of goodwill.

In 2008 and 2009, a greater variability of data is noticed: different I/G ratios correspond to smaller G/E ratios. Considering the initial objective, the results gathered reflect no apparent correlation.

As what concerns the first two purposes, the survey tried to analyze the information provided by the explanatory notes. We sought a correlation between G/E, and then I/G, and completeness of the disclosure offered by financial reports. We imagined that, in the case of a large goodwill or write-downs, the disclosure found in the notes to the accounts would be more

TABLE 2 CONFORMITY ASSESSMENT OF THE DISCLOSURE PROVIDED BY FINANCIAL STATEMENTS.

Amount of information found in the notes to the accounts	Conformity
0 – 2	Very incomplete
3 – 4	incomplete
5 – 7	Fairly complete
8	Complete

Source: Financial statements analysis.

accurate and, conversely, inaccurate in the presence of severe impairment of goodwill.

The legislative framework first outlined requires that entities provide disclosure about a very extensive range of issues, including for example the identification of CGUs and the method of calculating the recoverable amount. To advance towards our goal, we chose to give a specific score to companies that offered the most exhaustive information, among those who chose the value in use to calculate the recoverable amount. The aspects of disclosure considered here are the same as those investigated in the first part of the research about the value in use.

The qualitative and quantitative analysis we conducted sought to examine the following elements:

- the method of calculating the value in use;
- the amount of the discount rate;
- the method of calculating the discount rate;
- if the discount rate includes the rate of growth;
- if the discount rate includes the rate of inflation;
- the amount of the growth rate and / or inflation;
- the time horizon of the budget;
- the method of calculating the terminal value.

Anytime we discovered the presence of one of these pieces of information, we attributed a score of "1", otherwise "0". The completeness of disclosure was assessed by the sum of points scored by each entity, as shown in Table 2.

According to legislative provisions, only financial statements with a total score over 5 (equal to 5 pieces of information) were considered as "fairly complete"

or "complete", and under this threshold they are conversely considered as incomplete or very incomeplete.

This decision is due to the fact that, normally, entities provide an average of 5 pieces of information from 8, including the description of the method of calculating the value in use and the rate discount, the amount of this rate, the time frame of discount and the procedure to calculate the terminal value.

The disclosure that seems to lack the most conformity is represented by the inflation and growth rate and their amount, in line with the already described corpus of all listed companies[14].

Table 3 shows how conformity of firms continues to improve with time: companies that provide more than 5 pieces of information (in the Table % of entities with "good" information) increases from 47% in 2007 to 72% in 2009. Most of the firms (43%) provide five data. This result can be explained by the gradual adoption of legislative provisions by the competent bodies to better persuade Italian companies to fulfill normative requirements relating to disclosure.

Nevertheless, there is no direct correlation between the number of data provided by the notes to the accounts and the I/G and G/E ratios, yet there is still great variability of results.

The charts provided (Figure 2 and 3) show the correlation we attempted to find: on the X-axis it is possible to find the number of pieces of information and on the Y-axis the ratio that was considered, I/G or G/E.

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[14] Obviously this procedure does not take into account the importance of the provided data: on equal terms, an entity that presents the method for calculating the value in use and the discount rate is more in line with the accounting provisions, compared with a firm that only provides information on the time horizon of the budget and/or the amount of the growth/inflation rates.

TABLE 3 AVERAGE AMOUNT OF INFORMATION

Amount of information	2007	2008	2009	Mean 2007-2009
0	17%	11%	3%	10%
1	0%	3%	3%	2%
2	10%	6%	8%	8%
3	17%	6%	0%	7%
4	10%	14%	14%	13%
5	37%	44%	47%	43%
6	3%	0%	6%	3%
7	7%	11%	14%	11%
8	0%	6%	6%	4%
% of entities with "good" information	47%	61%	72%	60%

Source: Financial statements analysis.

They both concentrate on only one year, 2008, because this was thought to be the most representative year of the triennium for the economic period. Yet, the analysis gave approximately the same results for the other two years: in this way, it is also possible to better separate the three years data and to avoid any overlap.

The first chart (Figure 2) highlights the correspondence between the amount of information and G/E ratio: there is an evident concentration of data corresponding with the number 5 (5 pieces of information) on the X-axis. This means that several enterprises are used to provide a medium quantity of disclosure, and they belong to both groups of firms with high/low amounts of goodwill. Our original aim was to demonstrate whether companies with high amounts of goodwill tended to give few details regarding the impairment loss: this idea has been completely reversed, considering that there are some subjects with low G/E ratio and very few pieces of information. The second chart (Figure 3) details the eventual relation between I/G ratio and such disclosure: considering that few companies recognized an impairment loss, a sample of few data cannot be considered as representative.

This wide range of results prompted us to think that, generally speaking, no correlation can be found between these variables.

The research brought to light a positive signal: the group of entities with consistent goodwill and a G/E ratio above 50%[15], improved the information during

the triennium, while 40% of them kept it constant over the years. Similar results have been found with regard to FTSE MID CAP.
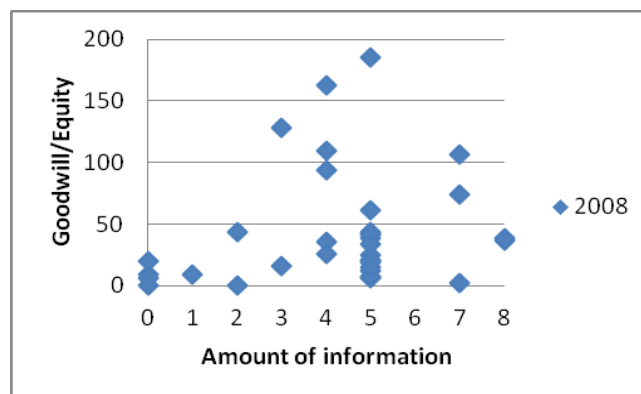

FIGURE 2 RELATIONS DISCLOSURE – GOODWILL/EQUITY (G/E)
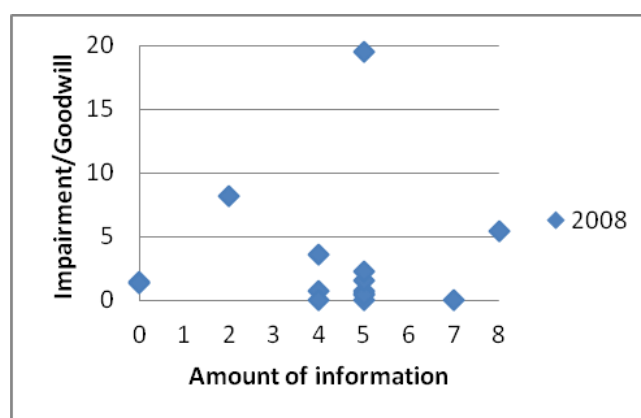
Source: Financial statements analysis.

FIGURE 3 RELATION DISCLOSURE – IMPAIRMENT/GOODWILL (I/G)

Source: Financial statements analysis.

[15] The entities with a high and risky G/E ratio are, consistent with what has already been stated, those with G/E > 10%. This test is performed taking into account entities that had, in at least one of the three years, a G/E > 10% and recorded, broadly speaking, a rising trend of information.

FTSE MID CAP Index

FTSE MID CAP index is composed of 60 entities with a market capitalization of 10% of the Italian Stock Exchange, of which 23% is represented by banks and insurance companies.

The subjects of the analysis were 30 financial statements from 2007, 55 from 2008 and 56 from 2009.

This subgroup is characterized by firms with lower amounts of goodwill: the average is about 50 million € and ina few cases it exceeds 500 million €. Also the medium write-downs are lower than those of the previously considered sample. Only 23% of FTSE MID CAP enterprises were impaired (versus FTSE MIB 30%) and 70 % of depreciations were less than 5 million €. Unlike what was found in the analysis of financial statements of companies belonging to the previous index, impairment losses are not attributable to banks and insurance companies, but rather to companies operating in various systems (real estate, personal services etc.).

The triennium write-down is 14.31 million € and the most relevant losses were found in 2009, although 2008 is the year with more devaluations of goodwill. The 2007 records' write-downs are of little importance (around 1.3 million €) in comparison to 2008 and 2009. Based on the results obtained, the companies of FTSE MID CAP have lower goodwill and, by definition, have less equity, because they are less capitalized than companies in the FTSE MIB, so that their G/E ratio is lower than FTSE MIB.

Similar to the FTSE MIB index, we attempted to identify correlations between G/E and I/G ratios and between the amounts of information provided in financial statements and such ratios, but the results were not encouraging. Figure 3 shows the relationship between the devaluations carried out, in percentage of goodwill, and G/E ratio. The goal is to verify whether the rise of goodwill in the balance sheet increases the value of write-downs. The chart shows that, sometimes, small amounts of goodwill correspond to huge write-downs, and in other cases it is the opposite. Therefore, there is no relation in the corpus of data considered here and the assumptions we made cannot be verified according to the sample we used. As stressed in the previous paragraph, the wide range of data gathered does not allow addressing this issue, because the disclosure provided by the sample firms

was not appropriate for this purpose or because they were heterogeneous and insufficiently detailed. This is a limitation of the present research.
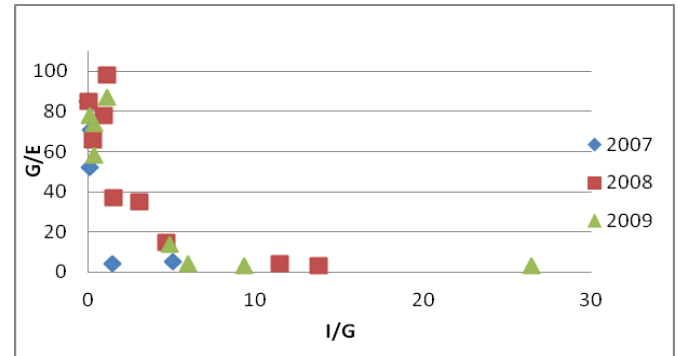

FIGURE 4 – RELATIONS BETWEEN IMPAIRMENT/GOODWILL (I/G) AND GOODWILL/EQUITY (G/E)

Source: Financial statements analysis.

With regard to the disclosure provided by financial statements of entities within the FTSE MID CAP, the research confirms the trend already observed for the FTSE MIB companies.

Given the working method described in the previous paragraph, the companies that provide information about the recoverable amount and choose the value in use, offer an average of 5 pieces of information in the notes to the accounts.

Generally, 36% of firms explain their method of calculating the value in use and the discount rate, providing the percentage, the time frame of estimates and the procedure for determining the terminal value. The largest deviations from legislative provisions are related to the growth and/or inflation rates and to their amount.

Even in this case, there exists a positive trend of compliance with current legislation: in 2007, only 50% of entities presented "good" information (only ≥ 5), while in 2008 it reached 61% and 73% in 2009.

Currently, disclosure relating to the impairment test is still far from the requested parameters of accuracy. In fact, companies that do not provide any information are on average 19% of the total.

In addition, considering the FTSE MID CAP entities with a G/E > 10%, only 39% of these improved their disclosure during the three-year period, while most (58%) remained constant. Therefore firms "at risk" belonging to this index have poorer compliance of regulatory landscape than firms of the FTSE MIB.

TABLE 4 AVERAGE AMOUNT OF INFORMATION

Amount of information	2007	2008	2009	Mean 2007-2009
0	23%	22%	13%	19%
1	7%	4%	3%	5%
2	0%	0%	0%	0%
3	17%	4%	2%	7%
4	3%	9%	9%	7%
5	23%	40%	45%	36%
6	17%	9%	12%	13%
7	7%	7%	11%	8%
8	3%	5%	5%	5%
% of entities with "good" information	50%	61%	73%	62%

Source: Financial statements analysis

Reasons behind this can be found in the composition of the FTSE MIB, which is made up of major companies in terms of market capitalization, with 28% consisting of banks and insurance companies.

These are required to observe not only the dictates of IAS 36, but also the OIC Applications issued during the past years to further sensitize the banks and insurance companies to greater compliance.

Another consideration could be the fact that their smaller size and relevance, if compared to those of FTSE MIB firms make them provide less information, even if all the companies are requested to conform to law.

The following figures (Figures 5 and 6) display the relationship between the number of pieces of information and the indices G/E and I/G: supporting results presented in Table 4. We note that a good percentage of companies provide five details and, among them, there are entities that have entered both a significant or negligible amount of goodwill or impairment. In fact, data in the charts are positioned in the column corresponding to certain values on the X-axis, for example, companies that provide five details have either small or large G/E, for both 2008 and 2009. The same is found for 4 or 6 details of information.

We have reached similar conclusions by referring to the amount of information found in the notes to the accounts of companies that recorded a smaller or greater write-down: they all provided an average of five data. That is good evidence, but still few enterprises chose to meet legislative provisions.
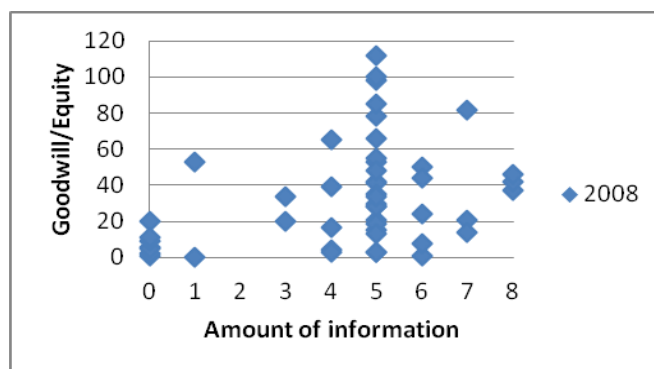

FIGURE 5 RELATIONS DISCLOSURE – GOODWILL/EQUITY (G/E)
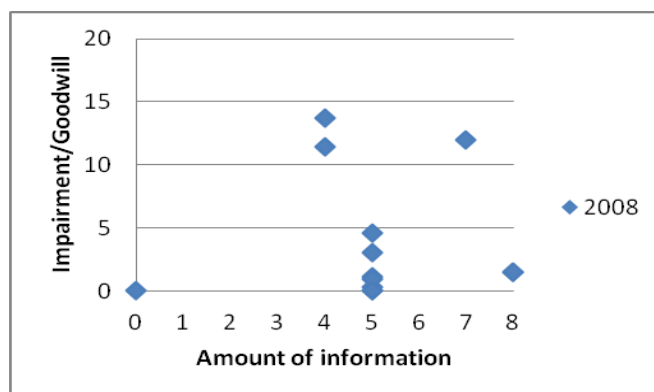
Source: Financial statements analysis.

FIGURE 6 RELATIONS DISCLOSURE – IMPAIRMENT/GOODWILL (I/G)

Source: Financial statements analysis.

The banking system

The banks examined in this paragraph form 80% of

two major indices, namely FTSE MIB (50%) and FTSE MID CAP (30%), while the remaining 20% are entered in the index SMALL CAP.

The sample is thus an intersection of the subgroups described above and presents certain peculiarities, since banking-houses are more sensitive to the issue of information compliance.

It is evident that transparency and clarity are pillars of all financial statements, especially in regards to banking systems. A bank balance sheet should be accurate in order to assist users to forecast the entity's future cash flows and, more importantly, their timing and certainty.

Proper transparency may contribute towards reduced uncertainties, especially in such a historical period of economic and financial changes (Bank of Italy, CONSOL and Siva, 2010).

In front of strict legislative provisions, banks would have no choice but to comply, however, as has been found, they are often far from the threshold of accuracy required by supervisors.

First, it must be made clear that the current Italian banking system is the result of a long process of business aggregations, whereby 92.5% of banks recorded an average goodwill of around 3.54 million € in their financial statements.

Only 34% of these impairment and write-down peaks are recorded in 2008, where about a half of banks recognized an impairment loss, which coincided with the deepening economic crisis.

The overall average depreciation is 101 million €, while the depreciation of 2008 amounts to 292 million €. Even in this case, the median was calculated to purify the information from the anomalies: the median devaluation over the three-year period is only 27 million €, while that for 2008 is 80 million €, confirming the variability of the data found. An average of 48% of entities have a goodwill level higher than 500 million €, but despite this, in 70% of cases, write-downs are less than 20 million €.

Results highlight that most banks have a G/E ratio between 5% and 20%, owing to several business aggregations. For many of them, goodwill poses more than 20% of equity, and in some cases more than 35%. A possible explanation of the phenomenon is that in Italy the number of banks have decreased over the last fifteen years, as a consequence of domestic mergers and acquisitions, as a way-out from crisis or from

economic difficulties (Montana and Torveronachi, 2006).

In particular, only a third of banks have a total amount of "safe" goodwill when compared to the equity, while 70% can be considered at risk, because they have a G/E ratio greater than 10%. However, the more relevant peak appears to be no higher than 35%, demonstrating how, in general, banks have a lower goodwill as a percentage of net assets, than all entities of the previously described samples.

The general trend was an increase in goodwill amount but also in equity, since most banking houses increased their paid-in capital during the considered period.

In light of the new Basel III rules, which require further strengthening of paid-in capital, it is possible to affirm that the effect of the increase of equity required to deal with the financial collapse has exceeded that of goodwill acquired through business aggregations.

In the footsteps of what has been done for the previous groups, we report the same graph (Figure 7) showing the relationship between goodwill and its write-down recorded in the financial statements in absolute values. As can be seen, generally, firms with a high amount of goodwill could record small or more significant depreciations. In addition, 2008 is the year with more impairment losses, compared to 2007 and 2009.
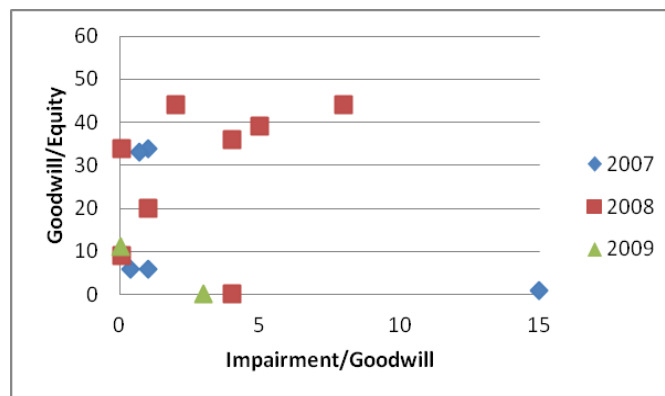

FIGURE 7 RELATIONS BETWEEN IMPAIRMENT/GOODWILL (I/G) AND GOODWILL/EQUITY (G/E)

Source: Financial statements analysis.

The section of the research concerning the disclosure of credit institutions was written following the same procedure adopted for previous samples, with further investigation on more interesting aspects related to the information, due to the peculiarities of the subjects under examination.

The information provided by banks about the value in

use is even more meager than the complex of entities belonging to the FTSE MIB and FTSE MID CAP, in spite of what is required by law, especially in the first two years considered (Table 5).

Overall, banks that offer information that is considered "good" and of sufficiently complete disclosure (amount of information ≥ 5) are on average only 43% of the total. Of the remaining, several companies are totally inadequate, since they do not offer any of the information that this paper considers.

Analyzing year by year: 2007 is the worst year in terms of compliance, as almost 87% of banks give incomplete information about their method of calculating the value in use, the discount rate and their components (amount of information < 5). Consequently, only 13% of financial statements can be considered satisfactory, as they provide five data (no companies offer more than 5 data).

Again, the greatest lack in completeness concerns disclosure about growth and/or inflation rate and their amount. The most important improvement concerns the number of banks that have gradually adapted to providing the information. This increases from 44% in 2007, to 67% in 2008 and 81% in 2009.

This evolution of quality can be explained by the ratification of the OIC Enforcements n. 2-2.1, which enriched the regulatory landscape given by IAS 36 and, in particular, interested banks goodwill impairment tests.

The process of mergers and acquisitions over the last two decades and the financial crisis contributed towards the growing necessity to integrate and improve the already existing rules.

As previously mentioned, the Enforcement n. 2 was approved in December 2009, while the Enforcement n. 2.1 for the Italian banking system was issued only in March 2011. As a consequence, only 2009 and 2010 consolidated financial statements fulfill their disclosure obligations by law, despite conformity to IAS 36 that was required for the years 2007 and 2008.

In addition, the small sample size allows for further investigation of additional items, as well as those already considered for the corpus of listed companies, namely:

- % of banks that identify CGUs;

- the number of CGUs;

- % of banks that attribute goodwill to CGUs;

- the number of banks that modify CGUs over the years and how many of these explain the reasons;

- % of banks providing information about recoverable amount.

In this case, the analysis has revealed interesting findings, showing a general lack of compliance of financial reporting over the studied time span.

Table 6 provides information about CGUs, indicating the average number of banks that identify CGUs and how many banks modified the criteria to determine their units in financial statements.

The outcomes were somewhat lacking: generally, less than half of the banks disclosed the number of identified CGUs, the methodology to define the recoverable amount and its value, in particular during the first two-year period.

TABLE 5 AVERAGE AMOUNT OF INFORMATION

Amount of information	2007	2008	2009	Mean 2007-2009
0	23%	22%	13%	19%
1	7%	4%	4%	5%
2	0%	0%	0%	0%
3	17%	4%	2%	7%
4	3%	9%	9%	7%
5	23%	40%	45%	36%
6	17%	9%	13%	13%
7	7%	7%	11%	8%
8	3%	5%	5%	5%
% of entities with "good" information	50%	62%	73%	62%

Source: Financial statements analysis

TABLE 6 QUANTITATIVE INFORMATION

	2007	2008	2009	Media 2007-2009
% of banks that identify CGUs	31%	38%	69%	46%
N. of CGUs	10	10	9	9,7*
% of banks that allocated goodwill to CGUs	69%	75%	88%	77%
% of banks that modified CGUs during the studied time span	38%			
% of banks that justify the changes of CGUs	67%			

Source: Financial statements analysis.

(*)The weighted average was calculated to determine the average number of CGUs (N° of banks that identified their CGUs x N° of recorded CGUs).

Furthermore, another relevant issue is explained by par. 72 of IAS 36, which states the necessity to keep the same criteria used to define CGUs over the years. The cluster has shown that 37.5% of banks changed their standards and, despite the obligation to explain this shift, few of them gave reasons.

The banks that complied with IAS 36 and OIC stated that the reasons were principally:

- corporate reorganizations;

- concentration of treasury management in the parent company and the issue of new bonds for retail and institutional consumers;

- sales network restatement;

- redefinition and reorganization of corporate structure and branch network;

- combined CGUs as a consequence of new synergies and acquisitions.

On average, only 69% of firms indicated how their recoverable amount was calculated (net fair value or value in use) and the worst outcomes are found in 2007, where only 44% disclosed this information. In 2009, the quality of the information significantly improved, with 80-90% of banks providing adequate disclosure, and with most applying the value in use as a methodology for calculating the recoverable amount.

Concerning any eventual link between the amount of information and G/E and I/G ratios, again, we notice a wide variety of data and a concentration of data in the abscissa corresponding to number "5", but no charts have been offered, since there were no substantial differences with respect to the other samples.

Samples comparison

This paragraph compares the most important characteristics related to the samples previously described in the last part of our investigation.

As can be seen from Table 7, the highest goodwill is recorded by entities belonging to the FTSE MIB index. In fact, as already stated, these companies are characterized by huge market capitalization, so their G/E ratio (51%) is, on average, higher than that of other companies.

Also banks have a high medium goodwill, equal to 3.540 million €, but G/E is more contained and equal to 24%. This is due to greater equity when compared with that of the FTSE MIB and FTSE MID CAP firms.

Companies within the FTSE MID CAP have a lower market capitalization and a smaller size, so that the average goodwill and equity are exiguous with respect to the previous samples. G/E ratio is less than that of FTSE MIB but higher than the bank because, by definition, FTSE MID CAP firms present a lower equity. In the three year period considered, the entities that recognized the most write-downs (34%) belong to the cluster of banks, presumably because of the economic crisis, followed by large companies listed in the FTSE MIB (30%) and the FTSE Mid Cap (23%).

The amount of average devaluation is corresponds to the type of companies that recognize impairment losses. For banks, this amounts to 101 million €, and the highest value is found in 2008 (Table 8: 292 million €). Even companies within the FTSE MIB have high losses, although less than credit institutions: the average figure of the triennium is 81 million €, and the peak is recorded in 2008, with an average of 160 million € (Table 8). The trend is different for FTSE MID CAP index. Most impairments are recorded in 2008, although the highest write-downs (an average of 30 million €) are registered in 2009.

This fact is confirmed by the 2009 I/G ratio (Table 8), equal to 9.4%, this is higher than the 2008 ratio, equal to 8%. Furthermore, the I/G ratio is low for entities with large market capitalization (FTSE MIB companies and banks) and is equal to 2% and 3%. FTSE MID CAP average amounts to 6%.

Finally, we conclude the present investigation by comparing the percentage of entities with financial statements that are known to be more compliant.

In light of Table 7 and what has already been said, there has been a clear improvement of disclosure between 2007 and 2009, although total compliance still has not been reached.

The most transparent financial statements are those belonging to FTSE MID CAP companies, in fact 64% of them can be considered "fairly complete" or "complete" because they provide more than 5 data.

The average amount of information provided is 4.2, equal to the amount of disclosure of FTSE MIB companies. In this index, 60% of companies provide "good" information.

This means that a larger number of companies within

FTSE MID CAP conform, but they offer a minor amount of disclosure than FTSE MIB firms.

It has also been noted, as previously explained, that the companies most "at risk" (G/E > 10%) within FTSE MID CAP are characterized by poorer legal compliance than FTSE MIB index. On the other hand, the analysis of banks financial statements shows discouraging findings about disclosure. Despite the known importance of ensuring transparency of information to protect stakeholders, only 43% of banks offer "good" information in their notes to the accounts. As can be seen in Table 8, in 2007, only 13% of banks offered at least 5 articles of information. Even within this sample, there was an increase in the number of adjustments between 2007, 2008 and 2009, although partial compliance is still evident. A marked improvement of completeness among the listed companies belonging to Stock indices was not observed, and the same was noted for banks. This can be attributed to the adoption of specific provisions of supervisory bodies, the OCI Applications and Document n. 4/2010, with the aim of ensuring improvement in financial reporting of banking and insurance systems

TABLE 7 COMPARING DATA OF TRIENNIUM.

	FTSE MIB	FTSE MID CAP	BANKS
Average goodwill	4. 801 million €	415 million €	3. 540 million €
% of entities that record goodwill	94%	93%	92,5%
Average impairment	81 million €	14,3 million €	101 million €
% of entities that impair	30%	23%	34%
G/E	51%	34%	24%
I/G	2%	6%	3%
% of entities with "good" information	60%	64%	43%
Average number of information	4,2	4,2	4,4

Source: Financial statements analysis.

TABLE 8 DATA FOR YEARS

		FTSE MIB	FTSE MID CAP	BANKS
Average impairment	2007	70 million €	1,27 million €	69 million €
	2008	160 million €	12 million €	292 million €
	2009	12 million €	30 million €	0,187 million €
G/E	2007	50%	33%	18%
	2008	55%	36%	28%
	2009	48%	34%	25%
I/G	2007	0,8%	1,2%	4%
	2008	2,1%	8%	3%
	2009	2,1%	9,4%	1,5%
% of entities with "good" information	2007	47%	50%	13%
	2008	61%	62%	47%
	2009	72%	73%	69%

Source: Financial statements analysis.

Conclusions

Since 2005, the international corporate financial reporting landscape has been transformed as a consequence of the adoption, by an unprecedented number of countries and enterprises, of the IFRS as a basis for the preparation of financial statements. As of the beginning of '70s, the European Union has contributed to global efforts aimed to promoting comparable and informative corporate reports.

The benefits of a common set of high-quality accounting standards are evident and very significant for issues related to the discretion of assessments and estimates by management. The introduction of this new regulatory framework should be useful to ensure a more transparent and standardized representation of the financial position of a company.

The issue of transparency and clarity is substantial, especially for listed companies: according to IAS 1, the general purpose of financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions.

Through the analysis of the empirical evidences of the period considered, this research aimed firstly to determine the real effects that the implementation of IAS/IFRS has on companies' consolidated financial statements disclosures, especially in regard to the accounting treatment of goodwill.

In fact, such requirement is even more delicate with regard to non-depreciable assets and intangible assets with indefinite useful lives. Many previous studies and contributions focused attention on the practical implementation challenges of IFRS (UNCTAD, 2008), or more specifically, on the potential consequences that the application of fair value accounting could entail (Laux and Leuz, 2009; André *et alia*, 2009). Our attempt was originally to demonstrate whether this new accounting system was actually able to improve the amount of information provided by companies, and in a second step to identify any eventual correlation between the disclosure of goodwill and its impairment with relation to some specific samples.

Furthermore, the period chosen 2007-2009 can be considered as very representative, because it covered the scene of the outbreak and the following worsening of the economic and financial crisis, allowing the opportunity to gain empirical evidence of the use of such disclosure by enterprises. The use of ratios helps to highlight the possible "extreme" situations, i.e. companies with too high goodwill or impairment amounts, in absolute terms.

Indeed, in regard to the first part of the research, it is possible to observe a relevant incidence of goodwill on equity: on average, companies that recorded goodwill have a G/E ratio of more than 40%. As previously explained, this is a tricky situation considering the relevance of this asset in the balance sheet and the difficulties in estimating its future economic benefits.

Few companies recognized impairment, and among these, most of them had very low impairment (average triennium I/G is lower than 2%). In 2008 financial statements, the number of losses increased in number and relevance (from 23% to 32%), but much below what was expected by considering the deepening of financial crisis.

Pieri (2009) suggested that most of the impairment losses would be recognized in the following years, but actually, our research showed that, still, in 2009, there was not a significant increase in the number of depreciations.

A possible reason for the lower percentage of impairment losses could be an inappropriate identification of Cash generating units in the balance sheet for IAS 36 purposes: the larger the CGU size is, the more difficult it is to procure in an impairment loss of its goodwill and assets. This suggestion simply arises from the fact that the provided disclosure by no means appears exhaustive and complete: actually, the areas with the highest lack of information are represented by the identification of the CGUs and the recoverable amount, in which only 73% of the entity chooses to respond to the normative dictates. This condition of inappropriate information could derive from nontransparent behavior and conform to what normative provisions actually ask.

Another interesting observation could concern the kind of companies that recorded relevant amounts of goodwill: as previously stated, these are banks and companies operating in telecommunications and energy systems, among FTSE MIB index firms. This is probably due to the fact that the economic industry in which they operate is rather stable and does not suffer from any kind of competition. Also, banks were among

the companies that were mostly impaired during 2008 and 2009, because they were the hardest hit by the financial meltdown.

In regards to the level of quality of impairment test disclosure, the research narrowed the study of IAS 36 and Italian law, finding that most Italian companies offered incomplete and unsuitable reports.

In fact, in many cases, it was possible to observe just a simple description of the general criteria set out in IAS 36 and little information about all the assessments and forecasts at the base of the process.

As a further confirmation, the Document n. 4 of March 3, 2010, emphasizes the general inadequacies of the 2009 Italian company's financial statements, after a recent survey led by the Bank of Italy, Consob and Isvap. Most of the financial reports seem to lack disclosure, especially concerning accounting items that are more vulnerable to the economic crisis, despite the urgent necessity to ensure expositive clarity. In addition to this, according to the Bank of Italy, even with signs of a global economic recovery, future forecasts are still uncertain, and this could influence each entity's performance on the most important financial statement items.

Some evidence from the present work concerns the choice of value of use as a recoverable amount: firms do not always identify the method used for the calculation, i.e. whether it is DCF or DDM, and similar problems were found for the discount rate (WACC or CAPM), for which the amount of discount rate was illustrated in only 70% of cases, while nothing is said about the rate of inflation and/or growth in 80% of the concerned entities.

In our opinion, the worsening of the economic European situation after the three years considered in the present analysis, could affect the future economic benefits that companies are expecting and, thus, inevitably cause new impairments of goodwill. In this situation of uncertainty, it becomes necessary to implement further controls and enforce legislative provisions to ensure the vigilance of quality financial reporting.

The greatest limit our research met was the lack of disclosure on some of the aspects evident in previous paragraphs (number of CGU, indication of the amount of discount, growth and inflation rate, etc...). In many cases, it was not possible to gather enough information to make a comparative and more extended analysis of the considered samples.

For instance, the comparison of G/E and I/G ratios with the number of information provided by financial statements stated no evident correlations: apparently, there is no connection between the recorded amount of goodwill or its impairment and the amount of information. It has been observed that companies have varying behavior that can be, in general terms, defined as "negligent", because actually both companies with high or low goodwill provided few pieces of information into the explanatory notes.

Moreover, it would be of great interest to study the effects of the crisis on the financial statements disclosure, for instance the impact on the growth and inflation rate of such years of negative effects on the real economy, but currently the only possible observation is that it was not possible to gather enough details about it.

We forecast that, thanks to more strict regulations, the outcomes of our study can be improved. The current research has been carried out considering samples of only Italian enterprises, for the already mentioned reasons of higher and simpler comparability.

Nevertheless, comparison with other countries could be a good start for future researches. It would be of great interest to deal with firms of other countries in order to investigate how they react to international and national law provisions and to compare the empirical evidence found with the results of this contribution: "Does Italy better comply to international standards? Are other European firms more scrupulous, providing higher quality information? What are the normative provisions issued by local governments to ensure an IAS/IFRS full adoption?" could be some of the more challenging questions arising from a cross-national analysis.

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